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EXAMINER
VILLECCO, JOHN M

ART UNIT	PAPER NUMBER
2612	

DATE MAILED: 02/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.		Applicant(s)	
Office Action Summary	09/096,395		TOYOFUKU ET AL.	
	Examiner		**Art Unit**	
	John M. Villecco		2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

> A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
> - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
> - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
> - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
> - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _12-28_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _12-28_ is/are rejected.

7) ☒ Claim(s) _25_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _11 June 1998_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _2_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Drawings

1.   The drawings are objected to under 37 CFR 1.83(o). Suitable descriptive legends are

required for proper understanding of the drawings. Therefore, the blank boxes shown in Figure 5

as reference numbers 36 and 37 should be labeled so the drawing can be properly understood.

Specification

2.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

Claim Objections

3.   Claim 25 is objected to because of the following informalities:

- In claim 25, lines 11 and 12, the wording is unclear. Line 11 of the claim recites

     that the "panoramic photographing apparatus includes:" and then, in line 12,

     skips to the phrase, "wherein the image information recorded". This phrasing

     makes the claim hard to understand.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimori (U.S. Patent No. 5,027,214) in view of Okauchi (U.S. Patent No. 5,907,353).

Fujimori discloses an electronic still camera that uses a variable data compression scheme for storing image signals. The camera includes a detachable memory card (17) used to store images taken by the camera, a frame count detecting section (25) for detecting the amount of frames recorded in the memory (18) of the memory card (17), a remaining capacity calculating/determining section (24) for determining the amount of available space left in the memory card upon insertion (col. 7, lines 34-37), a system controller (2) for estimating the number of images which can be recorded in the memory (18) (col. 7, lines 5-7), and a warning means for letting the user know that the amount of memory remaining may not be sufficient for recording the image or images (col. 7, lines 11-21). Fujimori also discloses a comparison step wherein the total amount of data from the images taken (MAX) is compared to the remaining memory (REM) to see if the images will fit onto the memory card (18) (col. 8, lines 34-57). In column 8, lines 50-57, Fujimori also discloses that a number (N) is displayed that represents the remaining number of images capable of being taken. Also disclosed is a displayed warning telling the user that the next image cannot be recorded on the memory and that the user should insert a new memory card to continue taking pictures (col. 9, lines 34-49).

Fujimori, however, does not disclose a predicted number setting means for setting the number of images predicted to be taken, or a comparison means for comparing the remaining number of images with the predicted number of images to be taken and displaying a warning based on the comparison. Okauchi, on the other hand discloses a system for producing high-

resolution images which sets the number of images to be taken according to the size of the

object. Based upon the focus setting and the size of the object the system sets a number of

images to be taken. Therefore, the system is predicting how many images will be taken based on

the size and focal length. These images are then synthesized to form one complete, high-

resolution image thereby forming a panoramic image. See col. 6, lines 6-34. Furthermore, the

system can operate to divide the image into more or less than the four images discussed in col. 6,

lines 6-34 and can even be arbitrarily set (col. 7, lines 39-52). Since the number of images to be

taken is derived in Okauchi, it would have been obvious to compare the number of images

derived and compare it to the number of images remaining in the memory and to generate a

warning according to the comparison as discussed in Fujimori. Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to predict the number of

images to be taken as in Okauchi and compare that number with the number of images remaining

on the memory card as in Fujimori to accommodate the user when taking pictures so the user

knows when the memory is full and to insert a new memory card if the memory card is indeed

full. This will aid the photographer so that any size of panoramic image can be taken and that

the photographer does not have to take memory capacity into consideration when taking pictures.

6.   Claims 15-18, 20, 22, and 25-28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Fujimori (U.S. Patent No. 5,027,214) in view of Moghadam et al. (5,682,197).

Regarding claim 15, Fujimori discloses an electronic still camera for taking a multitude

of images that uses a variable data compression scheme for storing the image signals. The

camera includes a detachable memory card (17) used to store images taken by the camera, a

frame count detecting section (25) for detecting the amount of frames recorded in the memory

(18) of the memory card (17), a remaining capacity calculating/determining section (24) for

determining the amount of available space left in the memory card upon insertion (col. 7, lines

34-37), a system controller (2) for estimating the number of images which can be recorded in the

memory (18) (col. 7, lines 5-7), and a warning means for letting the user know that the amount of

memory remaining may not be sufficient for recording the image or images (col. 7, lines 11-21).

Fujimori also discloses a comparison step wherein the total amount of data from the images

taken (MAX) is compared to the remaining memory (REM) to see if the images will fit onto the

memory card (18) (col. 8, lines 34-57). In column 8, lines 50-57, Fujimori also discloses that a

number (N) is displayed that represents the remaining number of images capable of being taken.

Also disclosed is a displayed warning telling the user that the next image cannot be recorded on

the memory and that the user should insert a new memory card to continue taking pictures (col.

9, lines 34-49). Therefore, when the remaining capacity (REM) of the memory card is

insufficient to record another image, the number of frames remaining (N) would be zero thus

necessitating the need for the warning and a new memory card.

Fujimori, however, fails to disclose a panoramic camera system. Moghadam, on the

other hand discloses a camera capable of operating in a normal photographing mode or a

panoramic photographing mode. The camera includes the use of a memory card (70) for saving

the image information. Therefore, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to include a panoramic mode in the camera of Fujimori in

order to give the user more options when taking pictures thereby utilizing the method for

determining the remaining capacity of a memory card as disclosed in Fujimori, in order to utilize

the efficient use of the memory card.

As for claim 16, as mentioned previously, Fujimori discloses an operation wherein if the

remaining capacity (REM) is deemed to be too small to store an additional image a warning is

generated. Fujimori also discloses calculating a number (N) which represents the number of

additional images capable of being photographed (col. 8, line 50). Furthermore, when the

memory card is full a warning is displayed informing the user to insert another memory card

(col. 9, lines 34-49). Therefore, when the number N is equal to zero a warning will be generated

telling the user to insert a new memory card.

With regards to claim 17, Fujimori discloses displaying a warning when the memory card

has reached its full capacity informing the photographer to insert a new memory card to continue

taking images (col. 9, lines 34-49).

Regarding claim 18, Fujimori discloses an electronic still camera for taking a multitude

of images that uses a variable data compression scheme for storing the image signals. The

camera includes a detachable memory card (17) used to store images taken by the camera, a

frame count detecting section (25) for detecting the amount of frames recorded in the memory

(18) of the memory card (17), a remaining capacity calculating/determining section (24) for

determining the amount of available space left in the memory card upon insertion (col. 7, lines

34-37), a system controller (2) for estimating the number of images which can be recorded in the

memory (18) (col. 7, lines 5-7), and a warning means for letting the user know that the amount of

memory remaining may not be sufficient for recording the image or images (col. 7, lines 11-21).

Fujimori also discloses a comparison step wherein the total amount of data from the images

taken (MAX) is compared to the remaining memory (REM) to see if the images will fit onto the

memory card (18) (col. 8, lines 34-57). In column 8, lines 50-57, Fujimori also discloses that a

number (N) is displayed that represents the remaining number of images capable of being taken.

Also disclosed is a displayed warning telling the user that the next image cannot be recorded on

the memory and that the user should insert a new memory card to continue taking pictures (col.

9, lines 34-49). Therefore, when the remaining capacity (REM) of the memory card is

insufficient to record another image, the number of frames remaining (N) would be zero thus

necessitating the need for the warning and a new memory card.

Fujimori, however, fails to disclose a panoramic camera which includes a photographing

information storage element to store photographing conditions and a control element for taking

subsequent images according to the stored photographing conditions. Moghadam, on the other

hand discloses a camera capable of operating in a normal photographing mode or a panoramic

photographing mode. The camera includes the use of a memory card (70) for saving the image

information. The camera system also includes saving photographing information along with the

image and using the photographing image in subsequent images. More specifically, Moghadam

discloses the use of indicia (22 and 24) for aligning images. The indicia serve as photographing

information by saving the address in the indicia address memory (60) (col. 4, lines 15-22) of the

indicia thereby showing where the camera was aligned in the previous images. Furthermore, the

indicia from the first image are used to align the second image. Therefore, it would have been

obvious to one of ordinary skill in the art to combine the teachings of Fujimori and Moghadam to

develop a panoramic camera capable of efficient memory management allowing the user to

continually take images with several memory cards under the same conditions in order to aid the user in taking images.

As for claim 20, Fujimori discloses an electronic still camera for taking a multitude of images that uses a variable data compression scheme for storing the image signals. The camera includes a detachable memory card (17) used to store images taken by the camera, a frame count detecting section (25) for detecting the amount of frames recorded in the memory (18) of the memory card (17), a remaining capacity calculating/determining section (24) for determining the amount of available space left in the memory card upon insertion (col. 7, lines 34-37), a system controller (2) for estimating the number of images which can be recorded in the memory (18) (col. 7, lines 5-7), and a warning means for letting the user know that the amount of memory remaining may not be sufficient for recording the image or images (col. 7, lines 11-21). Fujimori also discloses a comparison step wherein the total amount of data from the images taken (MAX) is compared to the remaining memory (REM) to see if the images will fit onto the memory card (18) (col. 8, lines 34-57). In column 8, lines 50-57, Fujimori also discloses that a number (N) is displayed that represents the remaining number of images capable of being taken. Also disclosed is a displayed warning telling the user that the next image cannot be recorded on the memory and that the user should insert a new memory card to continue taking pictures (col. 9, lines 34-49). Therefore, when the remaining capacity (REM) of the memory card is insufficient to record another image, the number of frames remaining (N) would be zero thus necessitating the need for the warning and a new memory card.

Fujimori, however, fails to disclose a panoramic photographing apparatus for storing photographing information and using that information to record subsequent images. Moghadam,

on the other hand discloses a camera capable of operating in a normal photographing mode or a

panoramic photographing mode. The camera includes the use of a memory card (70) for saving

the image information. The camera system also includes saving photographing information

along with the image and using the photographing image in subsequent images. More

specifically, Moghadam discloses the use of indicia (22 and 24) for aligning images. The indicia

serve as photographing information by saving the address in the indicia address memory (60)

(col. 4, lines 15-22) of the indicia thereby showing where the camera was aligned in the previous

images. Furthermore, the indicia from the first image are used to align the second image.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings

of Fujimori and Moghadam to develop a panoramic camera capable of efficient memory

management allowing the user to continually take images with several memory cards under the

same conditions in order to aid the user in taking images.

Claim 22 includes the added limitation upon claim 20 wherein the camera further

comprises a calculation element for calculating a remaining capacity and a warning generator for

generating a warning when the remaining number is less than a predetermined number. Fujimori

discloses inserting a memory card (17), checking its contents and determining a remaining

capacity (REM) (col. 6, line 65 – col. 7, line 4). In column 8, lines 50-57, Fujimori also

discloses that a number (N) is displayed that represents the remaining number of images capable

of being taken. Also disclosed is a displayed warning telling the user that the next image cannot

be recorded on the memory and that the user should insert a new memory card to continue taking

pictures (col. 9, lines 34-49). Therefore, when the remaining capacity (REM) of the memory

card is insufficient to record another image, the number of frames remaining (N) would be zero

thus necessitating the need for the warning and a new memory card. In this case the predetermined number would be zero.

With regards to claim 25, Fujimori discloses an electronic still camera for taking a multitude of images that uses a variable data compression scheme for storing the image signals. The camera includes a detachable memory card (17) used to store images taken by the camera, a frame count detecting section (25) for detecting the amount of frames recorded in the memory (18) of the memory card (17), a remaining capacity calculating/determining section (24) for determining the amount of available space left in the memory card upon insertion (col. 7, lines 34-37), a system controller (2) for estimating the number of images which can be recorded in the memory (18) (col. 7, lines 5-7), and a warning means for letting the user know that the amount of memory remaining may not be sufficient for recording the image or images (col. 7, lines 11-21). Fujimori also discloses a comparison step wherein the total amount of data from the images taken (MAX) is compared to the remaining memory (REM) to see if the images will fit onto the memory card (18) (col. 8, lines 34-57). In column 8, lines 50-57, Fujimori also discloses that a number (N) is displayed that represents the remaining number of images capable of being taken. Also disclosed is a displayed warning telling the user that the next image cannot be recorded on the memory and that the user should insert a new memory card to continue taking pictures (col. 9, lines 34-49). Therefore, when the remaining capacity (REM) of the memory card is insufficient to record another image, the number of frames remaining (N) would be zero thus necessitating the need for the warning and a new memory card.

Fujimori, however, fails to disclose a panoramic camera or identification data representing the set of panoramic images. Moghadam, on the other hand, discloses a panoramic

camera (10) capable of operating in a normal photographing mode or a panoramic photographing

mode. The camera includes the use of a memory card (70) for saving the image information.

Moghadam also discloses including identification information with the panoramic images which

represents the number sequence of each image (col. 4, lines 47-51). The identification

information allows for easier processing and better identification. Therefore, it would have been

obvious to use the memory card capacity system of Fujimori with a panoramic camera which

saves images on a memory card in order to allow the photographer to take any number of images

in a panoramic scene so as not to limit the photographer to the memory contained in one memory

card and additionally, to identify each of the image with an identifier for more coherent

processing.

Claim 26 includes the further limitation upon claim 25 wherein the identification

information is one of a file name shared by all images or a panorama number representing a

photographing order. Moghadam discloses that when the camera is in the panoramic mode that

the control processor (32) inserts the number and order of each image in the sequence in the

header (52). See column 4, lines 1-10. It would have been obvious to continue this process of

tagging images in a sequence on the second recording medium so that processing of the entire

panoramic image could be carried out.

Regarding claim 27, With regards to claim 25, Fujimori discloses an electronic still

camera for taking a multitude of images that uses a variable data compression scheme for storing

the image signals. The camera includes a detachable memory card (17) used to store images

taken by the camera, a frame count detecting section (25) for detecting the amount of frames

recorded in the memory (18) of the memory card (17), a remaining capacity

calculating/determining section (24) for determining the amount of available space left in the

memory card upon insertion (col. 7, lines 34-37), a system controller (2) for estimating the

number of images which can be recorded in the memory (18) (col. 7, lines 5-7), and a warning

means for letting the user know that the amount of memory remaining may not be sufficient for

recording the image or images (col. 7, lines 11-21). Fujimori also discloses a comparison step

wherein the total amount of data from the images taken (MAX) is compared to the remaining

memory (REM) to see if the images will fit onto the memory card (18) (col. 8, lines 34-57). In

column 8, lines 50-57, Fujimori also discloses that a number (N) is displayed that represents the

remaining number of images capable of being taken. Also disclosed is a displayed warning

telling the user that the next image cannot be recorded on the memory and that the user should

insert a new memory card to continue taking pictures (col. 9, lines 34-49). Therefore, when the

remaining capacity (REM) of the memory card is insufficient to record another image, the

number of frames remaining (N) would be zero thus necessitating the need for the warning and a

new memory card.

Fujimori, however, fails to disclose a panoramic camera or identification data

representing the set of panoramic images. Moghadam, on the other hand, discloses a panoramic

camera (10) capable of operating in a normal photographing mode or a panoramic photographing

mode. The camera includes the use of a memory card (70) for saving the image information.

Moghadam also discloses including identification information with the panoramic images which

represents the number sequence of each image (col. 4, lines 47-51). The identification

information allows for easier processing and better identification. Therefore, it would have been

obvious to use the memory card capacity system of Fujimori with a panoramic camera which

saves images on a memory card in order to allow the photographer to take any number of images in a panoramic scene so as not to limit the photographer to the memory contained in one memory card and additionally, to identify each of the image with an identifier for more coherent processing.

Claim 28 includes the further limitation upon claim 27 wherein the identification information is one of a file name shared by all images or a panorama number representing a photographing order. Moghadam discloses that when the camera is in the panoramic mode that the control processor (32) inserts the number and order of each image in the sequence in the header (52). See column 4, lines 1-10. It would have been obvious to continue this process of tagging images in a sequence on the second recording medium so that processing of the entire panoramic image could be carried out.

7.   Claims 12, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimori (U.S. Patent No. 5,027,214) in view of Moghadam et al. (5,682,197) and further in view of Udagawa et al. (U.S. Patent No. 6,195,125).

Claim 19 includes the further limitation upon claim 18 wherein the photographing conditions are one of exposure information, AF information, and white balance information. As described previously, Fujimori and Moghadam discloses all of the limitations of the parent claim, claim 18. However, neither Fujimori nor Moghadam disclose that the photographing information stored is exposure, AF, or white balance information. Udagawa, however, discloses

an electronic camera used for combining images to form a higher definition image that takes a

series of photographs under the same photographing conditions. Column 13, line 60 to column

14, line 26 disclose that a series of images are taken under the same focus, exposure, and white

balance as the first image sensed. Udagawa teaches that by taking subsequent images under the

same conditions as the first, the plurality of images is easier to combine and slows battery

consumption (col. 14, lines 24-26). Therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to take panoramic images under the same

conditions as the other images in order to avoid additional processing and to slow battery

consumption.

Claim 12 includes the further limitation upon claim 20 wherein the photographing

conditions are one of exposure information, AF information, and white balance information. As

described previously, Fujimori and Moghadam discloses all of the limitations of the parent

claim, claim 20. However, neither Fujimori nor Moghadam disclose that the photographing

information stored is exposure, AF, or white balance information. Udagawa, however, discloses

an electronic camera used for combining images to form a higher definition image that takes a

series of photographs under the same photographing conditions. Column 13, line 60 to column

14, line 26 disclose that a series of images are taken under the same focus, exposure, and white

balance as the first image sensed. Udagawa teaches that by taking subsequent images under the

same conditions as the first, the plurality of images is easier to combine and slows battery

consumption (col. 14, lines 24-26). Therefore, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to take panoramic images under the same

conditions as the other images in order to avoid additional processing and to slow battery consumption.

Claim 21 includes the further limitation upon claim 20 wherein the photographing conditions are one of photometric information, exposure information, a focus setting, a rotation direction, and white balance information. As described previously, Fujimori and Moghadam discloses all of the limitations of the parent claim, claim 20. However, neither Fujimori nor Moghadam disclose that the photographing information stored is exposure, AF, or white balance information. Udagawa, however, discloses an electronic camera used for combining images to form a higher definition image that takes a series of photographs under the same photographing conditions. Column 13, line 60 to column 14, line 26 disclose that a series of images are taken under the same focus, exposure, and white balance as the first image sensed. Udagawa teaches that by taking subsequent images under the same conditions as the first, the plurality of images is easier to combine and slows battery consumption (col. 14, lines 24-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to take panoramic images under the same conditions as the other images in order to avoid additional processing and to slow battery consumption.

8.   Claims 13 and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimori (U.S. Patent No. 5,027,214) in view of Moghadam et al. (5,682,197) and further in view of Okauchi (U.S. Patent No. 5,907,353).

Claim 23 includes the added limitation upon claim 22 wherein the camera includes a predicted number setting element for setting the number of images taken in the sequence, a

comparing element for determining if the first storage medium is sufficient to record all of the

images wherein the predetermined number is the predicted number and a warning indicates that a

second recording medium is needed. As described previously, Fujimori and Moghadam disclose

all of the limitation of the parent claim, claim 22. However, neither Fujimori nor Moghadam

teach a predicted number setting means or displaying a warning if there is not enough memory in

the first storage medium. Okauchi, on the other hand discloses a system for producing high-

resolution images which sets the number of images to be taken according to the size of the

object. Based upon the focus setting and the size of the object the system sets a number of

images to be taken. Therefore, the system is predicting how many images will be taken based on

the size and focal length. These images are then synthesized to form one complete, high-

resolution image thereby forming a panoramic image. See col. 6, lines 6-34. Furthermore, the

system can operate to divide the image into more or less than the four images discussed in col. 6,

lines 6-34 and can even be arbitrarily set (col. 7, lines 39-52). Since the number of images to be

taken is derived in Okauchi, it would have been obvious to compare the number of images

derived and compare it to the number of images remaining in the memory and to generate a

warning according to the comparison as discussed in Fujimori. Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to predict the number of

images to be taken as in Okauchi and compare that number with the number of images remaining

on the memory card as in Fujimori to accommodate the user when taking pictures so the user

knows when the memory is full and to insert a new memory card if the memory card is indeed

full. This will aid the photographer so that any size of panoramic image can be taken and that

the photographer does not have to take memory capacity into consideration when taking pictures.

Claim 24 includes the added limitation upon claim 23 wherein the apparatus further

includes means for checking whether the second recording medium has been interchanged for

the first recording medium. Fujimori discloses once the capacity of the memory card (17) has

been reached, photographing operations are inhibited and the system waits for a second memory

card to replace the first. See column 9, lines 43-46. This implies that there is a means for

checking whether or not a new memory card has been inserted.

Claim 13 includes the added limitation upon claim 23 wherein the identification

information is one of a file name shared by all images or a panorama number representing a

photographing order. Moghadam discloses that when the camera is in the panoramic mode that

the control processor (32) inserts the number and order of each image in the sequence in the

header (52). See column 4, lines 1-10. It would have been obvious to continue this process of

tagging images in a sequence on the second recording medium so that processing of the entire

panoramic image could be carried out.

Any response to this action should be mailed to:

> Commissioner of Patents and Trademarks
> Washington, D.C. 20231

or faxed to:

> (703) 308-6306 (For either formal or informal communications intended
> for entry. For informal or draft communications, please label
> **"PROPOSED"** or **"DRAFT"**)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (703) 305-1460. The examiner can normally be reached on Monday through Thursday from 7:00 am to 4:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service desk whose telephone number is (703) 306-0377.

JMV
2/25/02

WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600